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PRESIDENT'S ADDRESS.*

R. BENNIE, M.D.

SAULT STE. MARIE, MICH.

Fellow Practitioners of the Upper Peninsula: At the outset, I desire to thank you most sincerely for the honor you have conferred upon me in selecting me to preside over the destinies of this Society, during the last two years. With your co-operation always so freely given and the able assistance of the Delta County Medical Society, under whose auspices we meet, I have every hope and confidence that this meeting may prove pleasant and useful to us all.

Since last we met in annual convention, our peace-loving and forbearing country has been forced to take part in the most terrible war that the world has ever known. A war that not only threatens the obliteration of nations, by means of the sword, but the extinction of whole races of people through pestilence and mal-nutrition with its resulting evils.

At the recent meeting of the American Medical Association the question of "War's Influence on Medicine," was very thoroughly discussed by Dr. Charles Mayo, President of the Association, as was also the "Influence of War on Medical Science," by Dr. James Ewing, Chairman of the Section on Pathology and Physiology, but it would appear that the question more immediately at hand is "The Effects of Medical Science on War." What part is the medical profession to play in this great conflict? It is true that these two propositions are correlated and so intimately associated as to be inseparable, just a little different viewpoint.

At our own State Meeting in May, it was pointed out by Dr. C. B. Burr, that of all the arts and sciences of which, before the war, we boasted as advances in civilization and progress, the only science devoted to conservation, to building up, to repairing that which

is broken, is the science of medicine and the arts and sciences allied thereto, nursing, dentistry, pharmacy. All the others, physics, chemistry, electricity, the industrial arts, are being loosened and all of their forces are being used for purposes of destruction.

In selecting this theme, I feel that I am but following the general trend of thought at the present time, besides, this question is pertinent to the aims and plans of this Society. The relation of the profession we represent to the war in general is not old. It is decidedly new and modern. The physician as a vital and integral part of the great fighting organism played a rather unimportant part in the war of former times. True, he was there, ever officially recognized, ever since there were regular armies and so-called modern warfare of that particular time, but his work was considered of little consequence, his estimate by the State and by those in immediate command of the fighting forces, was rather low, and the net results of his operative surgery pitifully small as compared with the highly developed efficiency of the modern Medical Corps.

War as conducted at the present time is a combination of scientific forces employed with scientific thoroughness, making it less a matter of individual bravery than the co-operation of a multitude of factors, not only human but mechanical. The successful working of which depends not only upon the ingenuity of the designing and directing minds, but as much and perhaps more upon the faultless working of a cold, soulless, but nevertheless highly efficient machinery.

The enlarged scope of modern warfare with its numerical extensiveness and horribly efficient intensity makes also a greater demand upon the co-operation of its medical officers. The activities of the Medical Corps are in the main threefold:

1st. The physical preparation of the Country's man-power.

2nd. The hygienic, sanitary and dietetic car-

*Read at the Annual Meeting Upper Peninsula Medical Society at Escanaba, August, 1917.

of the men in training and of the armies in the field.

3rd. The functional repairment of the sick, the wounded and the crippled.

On the basis of the wellknown and generally recognized medical dictum, that "An ounce of prevention is better than a pound of cure," the warring nations, notably those of Europe having standing armies, have gone to great lengths to prepare the personnel of their armies during the time of peace, not only intellectually but physically, to make them seasoned and hardened and capable of great and lasting offensive momentum, as well as capable of enduring the most adverse physical and climatic conditions with the least possible deleterious effect upon their physical organism.

Commencing with the examination of the recruit, which is most rigid and thorough, and his particular physical condition, which may either exclude him altogether or assign him to such branches of the service where a lesser strain makes lesser demands upon his less capable physique.

The absolute application of this principle of relative utility of the individual for a selected service is, I believe, the secret of the astounding endurance under most trying conditions of the man-power of the central European nations, and this application does not begin with the recruit in the barracks; it begins with the pupil at school, it continues through his young manhood, it follows him through life and makes him an efficient fighting force in time of need.

The old Spartan idea of the State as the dominant feature and the individual as subservient to it, has found its realization anew in the European powers, who lay claim to the highest possible efficiency of the individual to the greater efficiency of the State. Which is it? The individual, for the sake of the commonwealth, or the commonwealth for the sake of the individual. That is in the last analysis the difference between the Teutonic and the Anglo-Saxon idea of freedom. Whether we like it or not, we are forced by the sheer necessity of efficiency to follow the example of our foes and even, if only for the time being, render subservient to the higher needs of the State, the inclinations of the individual. Here we must consider every necessary means to render a highly efficient service to our Country by supplying it with human material, fit to do and endure the tremendous demands of modern warfare. Tremendous indeed, not only because of numbers heretofore unknown and believed to be impossible and impracticable, but also be-

cause of the increased destructive power of modern war machines; but many surprising things have happened during this war, which were hitherto thought impossible.

Barely three years ago, we all read and many of us believed, that the destructiveness of modern engines of war would make a long war impossible, and that the use of the small calibre of the modern projectile would render impossible the ugly wounds of former conflicts. The experiences of the present war, however, show that both assumptions were wrong. The last European war of any magnitude, from the standpoint of numbers of men engaged, was the Franco-Prussian War of 1870-71. It lasted less than a year. The present war has entered its fourth year, and what of the much discussed humane or "Civilized Warfare?" While it is unquestionably true that projectiles from the small infantry rifles are comparatively less destructive in lasting results than the coarse large projectile, such as was used in our own Civil War, it is also true that the modern magazine rifle, the machine gun, and similar machines can throw their projectiles in much less time and in greater numbers, and while the Medical Corps finds the flesh wounds caused by the smooth steel jacketed bullets, easy to treat, we are confronted by the newer and more inhuman lacerations of explosive bombs, gases, liquid fire, and the most of all, the dreaded shrapnel. But here let me point out to you with professional pride the almost miraculous results of the treatment of these wounds, heretofore considered almost hopeless. The advances of medical science along the lines of asepsis and antisepsis has been the means of saving limbs and lives that formerly would have been lost, and the astonishing fact that from 75 to 87 per cent of all wounded return to the front. I might also mention the fact that the increased efficiency of the nursing profession has greatly lessened the amount of pain and suffering formerly so unavoidably associated with the battlefield.

But perhaps the greatest service the medical profession has rendered humanity, a service of most constructive, yes, almost creative character, is the functional repairment of the battered and crippled. Here constructive surgery has had its greatest triumphs, and permit me to say, that while modern war is employing science in its highest potency, only for destructive purposes, medical art has brought to still higher perfection the practical application of that same science for constructive purposes.

Artificial limbs we have had long before this war, but they were comparatively crude, and

often of little practical value. Modern surgery, under the pressure of the dire necessity of many thousands who have lost arms, legs or fingers, has developed a new art—the re-vamping, so to speak, of the human body, and is succeeding to such an extent, that her work is not only aiding and comforting the afflicted individual, but materially solving an economic problem for the State.

Where, heretofore, the pension fund, charity organizations and private assistance, rendered a service to the crippled veteran, making him after all dependent or semi-dependent upon others, modern creative surgery has found means and ways to make these unfortunate victims at least partially self-supporting. Perhaps some statistician will figure out the economic value of these services to the State.

Viewing the purely medical aspect of the service, the results at the present time are marvelous. During our Spanish American War, thousands of our soldiers contracted typhoid fever, malaria, dysentery and whole shiploads were landed on their return, suffering from these diseases, and in many instances with almost no medical attention. At the present time we can apply our increased knowledge of prophylaxis, sanitation and hygiene with the result that these diseases are becoming relatively rare, among the fighting forces, truly a glorious achievement for this branch of the service.

Now at the risk of becoming tiresome, I will take a little more of your time to say a word for the Medical Officers Reserve Corps.

Our Country is calling for medical men, the most recent estimate is, I believe, 24,000 or 25,000. The need is great. The call is urgent. There is ample scope for every one in his own particular line, the laboratory man, the clinical diagnostician, the internist, the surgeon, the alienist and neurologist; many cases of mental disease are developing from shell shock.

To the young man, the advantage of joining the Medical Officers Reserve Corps is great. Apart from the purely professional aspect, he will gain self-reliance and resourcefulness, which in later years will prove two of his greatest assets. To those of middle life, there will be opportunities for practical application of the results of their years of experience. The remuneration is not large, but we will have the enduring satisfaction of having rendered our beloved Country a most valuable service in the time of its most pressing need.

TWO CASES OF CEREBELLAR CYST.

A. S. KITCHEN, M.D., F.A.C.S.

ESCANABA, MICH.

My purpose in taking up this subject is to emphasize the bolder and more evident features of this most interesting and possibly not uncommon condition. This was first suggested to me several years ago when I had my first case; and still more forcibly later at the Boston Meeting of Clinical Congress of Surgeons where I was fortunate enough to see Dr. Harvey Cushing operate and to hear his assistants lecture.

I might say that the most impressive feature of this clinic was the reading of a clinical history record written by a physician in the country which was remarkable for its logic and keen observation of the patient under discussion. I might add also that the diagnosis had been worked out to a remarkable degree of certainty. I asked myself the question, "Is it possible that we have been lurking in the dark all these years while the rest of the country practitioners are progressing into such astute diagnosticians?"

Later I discovered that this one man was somewhat of an exception and that at least a goodly percentage of our men had allowed themselves to be diverted from the head to the belly.

We all had learned in college—in fact had drummed into us—the four cardinal symptoms of cerebral tumor: headache, vomiting, vertigo, and optic neuritis, and yet out in the swirl of general practice we kept our eye on the poor little appendix.

All the cases I have seen were treated for gastric and other abdominal conditions, and yet after a lucid interval of thought the diagnosis stood out as plain as a great ship out of a suddenly lifting fog.

The cases I have to report are somewhat ancient but still under observation. In fact I hope to present them to you to-day.

CASE 1. Man aged 30. While working on a post-saw in July, 1909, the post flew back from the saw and struck him above the left ear. He was knocked unconscious and bled profusely from the mouth, nose and left ear. About five hours afterward he regained consciousness and after three days was sent to his home in Escanaba.

At this time I was called and found as the most prominent symptom a complete paralysis of the left side of face. As far as I can recall there were no symptoms such as vomiting, headache, optic neuritis, or vertigo which were prominent enough to indicate any great amount of intracranial pressure. Of course a certain amount of soreness and dizziness

*Read at the meeting of the Upper Peninsula Medical Society, Aug. 2 and 3, 1917.

isted at this early date but these were attributed to the concussion, so that his condition was considered generally satisfactory when the severe nature of the injury was taken into consideration.

The facial paralysis was treated by electricity for about eight weeks, after which time he went to work on the docks. This necessitated climbing ladders and he noticed that by either looking upward or downward he would become dizzy, and it was only by looking straight ahead and maintaining a firm grip on the ladder that he could prevent himself from falling.

He was fairly well until the following June at which time his wife noticed that he had a poor appetite, bad breath, and coated tongue. This however, went away after rest and physic.

He was fairly well all winter but in the spring of 1911, to quote his wife: "His knees and arms seemed to be weak. He was very irritable and could not bear any noise nor could he sleep on account of the heat. There seemed to be a pressure in his nose and his nose was always running. In June he was very much inclined to lie down at any opportunity. In the beginning of July he was dizzy but his was not steady. Vomiting started about the third week in July. This vomiting would come on independent of eating and was accompanied by severe wrenching and pain in the head so that I would have to hold his head. This vomiting was such that it was hard to keep him vomiting in the basin. It was difficult to arouse him for supper which would be his breakfast as he worked nights. After eating and on his way to work he would sit down and vomit probably once or twice. After going to work which was on the docks, eighty feet high, strange to say, he would not feel sick."

I have given you the wife's verbatim account of his symptoms for the reason that I regard the close observation of intelligent relatives as of enormous value in the early detection of these cases. In fact I am to-day relying on the hewd observation of this woman for the detection of any signs of an early recurrence in his man.

These cases come to the physician generally late and have often been treated by the relatives with headache powders and physic for some time, and I must admit that even physicians, in the hurry and bustle of general practice, are prone to pass lightly over these cases in the early stage and later get into disrepute when the real disease is recognized after the classic symptoms are fully developed.

To continue with the history of this man I might say that on June 8, 1911, I was called while this man was in the condition described by his wife as listless, irritable, very dizzy, vomiting, with slight delusions, and with considerable animosity toward his wife and children.

I at once referred him to Dr. Elliot for examination of eye grounds. Dr. Elliot states that he found a most remarkable edema of the optic

disc. Dr. Elliot also put him through several of the modified Berney tests, most important of which I regard, the pointing tests. These are made by having the patient point at a definite point while his eyes are opened. Then to close his eyes while standing (if possible) to drop his hand to his side and bring the pointing finger back as near as possible to the original point. Using the right hand, a man suffering with a right cerebellar lesion would be unable to bring his finger back to the original point. His finger would probably be brought back from two to six inches to the right of the point. In left cerebellar disease the finger would be brought to the left of the point. However, left cerebellar disease would be tested with the left hand.

Another important test is a rotation of the wrists. Owing to a tonic pressure on the intrinsic nuclei, the wrist on the diseased side would rotate slower than on the normal side.

The tests for nystagmus as I will explain later, should never be considered absolute for cerebellar tumors, but in conjunction with other tests, are very important.

In Case 1 Dr. Elliot found very pronounced nystagmus. When looking to the right there was a rotary nystagmus but none in any other direction. Also when looking to the right he became dizzy. For this reason it was his habit to keep his eyes looking downward. In fact he used to lie on his right side with his face partly buried to the right in order to avoid feeling dizzy and getting nauseated. On standing up with his feet together he would sway to the right and rather forward. This swaying to the right and rather forward is a good localizing symptom indicating a break in the co-ordinating fibres of the right side of the cerebellum. His temperature was either normal or subnormal.

I may state here that if abscess were suspected one would expect irregular temperature. However, one can have an abscess and still have subnormal temperature. This, no doubt, is the result of pressure interfering with the heat regulating center in the fourth ventricle. His pulse was remarkably slow, being around 50. This also indicated intracranial pressure with pressure on the pneumogastric nucleus.

In this case then, we were lead to make a positive diagnosis of right cerebellar trouble in spite of the strong traumatic indications on the left side, X-ray even having shown fracture of the left side.

CASE 2. N, aged 14. Fairly well nourished girl with sallow complexion. Early history is practically negative. The family history is exceptionally good. In October, 1914, child complained of headache in

the occipital region with some dizziness and nausea and sometimes vomiting. These occurred about twice a month but sometimes several months would pass without any symptoms.

In the following spring, 1915, these attacks became more frequent and almost generally occurred in the morning so that it would be necessary for her to return home from school.

About this time I was called and found that she would have a half a degree of fever at times, and again she would have subnormal temperature. I was not able to observe her vomiting for the reason that the attacks would come on very suddenly and last only a short time. Her headaches seemed to be indefinitely located in the back of the head and neck. Her pointing tests were about two inches to the right. Her left pointing tests were also disturbed but so irregularly that I could not be positive as to the location of the disease on the left side. In walking she would toe outward with the right foot, her chin pointing slightly outward and to the left. This convinced me that there was a pressure tone in the right cerebellar nuclei or a pressure on the nucleus of the eleventh nerve which held the occiput towards the right shoulder. The position of the right foot with the toe turned outward seemed to me an attempt to maintain equilibrium as the result of a right sided ataxia.

This case I referred to a Chicago surgeon of considerable reputation on brain surgery. I was very much surprised to learn from him later that he had done a left cerebellar decompression, not only on his own initiative, but after consulting with expert oculists and otologists. He explained in his letter that optic neuritis was developing so fast that he had done this in an emergency to save the sight.

She returned home in about four weeks somewhat improved but with a quite distinct cerebellar hernia.

It was only a few days before serious symptoms of pressure again existed, and the hernia was enlarging very rapidly. The localizing symptoms now were very much demoralized. She had fully as bad left symptoms as she did right and I advised her father to take her back to Chicago again as soon as possible. This he was not very much inclined to do and put the proposition up to me to do the work myself.

Feeling sure that the surgeon in Chicago would have explored any cyst on the left side had it presented itself at the time of operation, and realizing that the patient needed a more extensive decompression, I decided to go in on the right side. Of course my first obstacle was severe venous hemorrhage. My second misfortune was to find the skull eroded from pressure of the tumor. This erosion exposed a large diploic vein which I unfortunately cut. The hemorrhage was very severe. However, this was subsequently controlled and a large area of bone removed. The dura was opened and the cerebellar tissue perforated with artery forceps. There was at once a gushing of a fairly clear fluid of light specific gravity and it was marvelous to see the immediate disappearance of hernia on the left side together with all other evidences of pressure. The venous hemorrhage at once stopped. A drain was inserted and the wound closed.

The patient after a stormy two or three hours, made a prompt recovery and has remained well to

this day, except showing the symptoms which I will afterwards take up.

The Surgical history of Case 1 is summarized as follows: In June, 1911, the original decompression was done on the right side in the occipital region. The venous engorgement here was extreme and the diploic veins bled profusely. The dura was opened and the cerebellum found to be under great tension. The cerebellum was punctured with a grooved director and a straw colored fluid spurted with force for a distance of several inches. There must have been from one to two ounces of this fluid present. The cavity was lightly packed with iodoform gauze and the wound closed. The drain was removed on the fifth day.

The remarkable thing about this case was the wonderful transformation in this man inside of twelve hours. From an absolutely helpless man who appeared like one very thoroughly intoxicated he became a clear rational human being with almost complete co-ordination in twelve hours. The recovery was so fast that he was working inside of two weeks.

About two years later, however, his wife diagnosed a recurrence of the disease. At this time I removed him to the hospital, and locating the site of the original drain, I aspirated about an ounce and a half of the same straw colored fluid through a spinal needle. This relieved him again for about a year.

About a year later than this I again aspirated the cyst.

Last year in June the cyst had filled again and I made an extensive opening of the original wound and enlarged the decompression opening. I found the cyst located in the upper portion of the right hemisphere. It had a glistening membranous lining and I inserted my finger to its full length to determine the possibilities of removal. At the bottom of the cyst which must have approached the fourth ventricle the least pressure of the finger would cause a marked disturbance of respiration. So much so that I retreated hastily, again leaving a drain as before.

This patient has remained in perfect health since that day. I expect the cyst to refill but feel confident that I can relieve any dangerous symptoms within a half an hour's time, the man not losing more than one-half day from work.

In studying these cases one should adopt a systematic procedure. After making note of the four cardinal symptoms of brain tumor the next step is to endeavor to locate the lesion. I think one should start with the olfactory nerve. Then with the optic and each cranial

nerve should be thoroughly studied in the order from their exit from the brain. This should be done in conjunction with an oculist and otologist. The sense of smell should be studied, the presence of catarrh considered, and so on back to the twelfth. Valuable information will be found which will give one a fairly correct idea where to find the lesion.

When we have once suspected the cerebellum, a thorough study of all the classic cerebellar signs and symptoms should be made.

The vestibule and the labyrinth and all eye symptoms of course, belong to the oculist and otologist.

Some of the Barany tests are quite complicated and involve the irrigation of the ear with cold water in order to study any abnormal influence on the very important symptoms of nystagmus and the pointing tests.

Rotation tests are also made which give a clue as to location of these lesions but any general practitioner can easily carry out many of the simpler tests.

As this paper is supposed to be a limited report of cases, I will purposely avoid taking up the technic of these tests. I might, however, touch on a few points of the cerebellum. Biologically the Vermis is the oldest portion of the cerebellum and its development goes more or less side by side with the necessities of equilibrium. The middle lobe of the hemispheres is known to receive fibres from the spinal cord, carrying knowledge of the position of joints and the tension of muscles. It also receives fibres from the labyrinth which convey impulses and knowledge concerning the maintenance of equilibrium.

The cortex of the hemispheres is younger in development. It has no motor function as in the cerebrum, but it receives afferent axones from the cerebrum. The efferent axones run to the intrinsic nuclei where impulses are elaborated and sent out to the ganglionic cells of the cerebrum, medulla, and spinal cord, and is of such a nature as to influence muscle tone and consequently the maintenance of equilibrium.

Thus, the cerebellum is a co-ordinating organ and if the reflex arc is broken in either the afferent or efferent portions, ataxia results.

But as far as the elaborating portions or as one might say, the relay points in the intrinsic nuclei are concerned, these have been shown to have entirely to do with muscle tone, and irritation of these nuclei produce tonic convulsions in distinction to the clonic convulsions as the result of cerebral motor stimulation.

Hence the first symptoms to expect and look for in cerebellar disease would be a loss of co-ordination as indicated by a failure to maintain equilibrium and secondly the loss of muscle tone which might be indicated by a flaccidity of the muscles of the extremity but more often of the muscles of the trunk itself.

When once the cerebellum has been signaled out as the seat of disease it is then obligatory on the part of the diagnostician to make a differential diagnosis by the process of elimination. This as I said before, is done in a systematic manner by taking into consideration the function of each cranial nerve, always remembering that some basal pathology may exist which may involve the roots of one or several cranial nerves and which if given too much emphasis, might lead the diagnostician astray.

Starting with the olfactory nerve and nasopharynx, I might emphasize that both these cases showed a profuse naso-pharyngeal discharge. This would not necessarily mean that the disease would be located in the anterior or middle fossae, but this actually was the result of the extensive intracranial pressure.

In both of these cases eye muscle symptoms were present. In Case 1 there was a distinct ptosis, indicating a weakened levator, (third nerve). In Case 2 there is a distinct rotation of the eye inward which might be due either to excessive tone on the internal rectus or a paresis of the external rectus. The internal rectus is supplied by the third nerve and the external rectus by the sixth nerve.

Cushing has pointed out that there is an important fasciculus known as the posterior longitudinal bundle which passes forward from the medulla and is so connected up with the nuclei of the seventh, sixth, fourth, and third nerves that it frequently happens that when this posterior longitudinal bundle is affected by disturbances in the posterior fossae, there are also associated disturbances in these nerves.

The fifth nerve has shown no signs of involvement in either case at any time. The seventh or facial nerve showed disturbance in Case 1 only immediately after the accident. The eighth or auditory nerve I left entirely to Dr. Elliot. This, as he may possibly explain to you, showed considerable disturbance.

The nystagmus that Dr. Elliot noted in this case (Case 1), he considered entirely a cerebellar nystagmus.

The ninth or glossopharyngeal nerve showed no disturbance except possibly some disturbance of taste in Case 1.

The tenth or vagus nerve showed the disturbance of vomiting in both cases. The eleventh or spinal accessory showed the occipital tilting of the head toward the shoulder on the right side of the lesion. The twelfth or hypoglossal showed inequality in the motility of the tongue muscles.

Coming to the cerebral cortex I might say that there were no frontal lobe symptoms whatever except irritability in Case 1. There was no euphoria or undue happiness. No disturbances in the speech or other motor centres, except in Case 1 attributed to hypoglossal nerve root pressure (thick slow articulation).

No auditory or visual disturbances to indicate trouble in the occipital or temporal lobe, no choreiform movements to indicate trouble in the red or lenticular nuclei, no spasticity, no aphasia, no trouble in the hypophysis.

Passing to the posterior fossae there is no trouble of a bilateral character involving the seventh and eighth nerves.

Coming to the reflexes we find they are all practically normal which is quite characteristic of cerebellar disease.

Considering next the motor symptoms, the vision is no help to the ataxia; the ataxia is not increased by shutting the eyes. The inco-ordination appears only during the active movement of the limb and does not increase toward the end of the movement, and finally the limb may remain steady when the object is attained.

Some patients may be able to conceal the ataxia as there is a voluntary center in the frontal lobe connected to the cerebellar cortex which if highly trained, may be able to obscure the symptoms.

Tumors of the vermis affect the gait more than do tumors of the hemispheres and when exactly in the mid line, the tendency is rather towards falling forward or backward than to one side.

Vertigo is dependent upon interference with the vestibular portion of the eighth nerve in any part of its course from the semi-circular canal to Deiter's nucleus, and thence to the cortex of the middle lobe and is entirely independent of ataxia although each may aggravate the other.

Stuart and Holmes have worked out a method for the differential diagnosis between intra and extra cerebellar lesions. Thus when the patient complains that his giddiness consists in the displacement of external objects in front of him, it is found that both in the intra and in the extra cerebellar growths, this displacement takes place

from the side of the lesion to the opposite. Whereas when the sense of giddiness depends upon the rotation of the patient himself there appears a distinct difference.

In intracerebellar growths the rotation of self is from the side of the lesion to the healthy side while in the extracerebellar ones the reverse is true and the patient feels as if he were turning from the healthy side to that of the lesion.

Where a tumor is extracerebellar and involves the acoustic portion of the eighth nerve there is invariably some nerve defects on the side of the lesion.

Where the trouble is intracerebellar there is rarely any affection of hearing. This was true in both Cases 1 and 2.

Involvement of the facial nerve comes late and speaks for extra cerebellar trouble. As I said before the facial nerve was involved only early in Case 1.

EYE SYMPTOMS.

Paralysis of the external rectus frequently present has no diagnostic value. Conjugate deviation of the eyes to the side opposite to the lesion is rather frequent but deviation towards the side of the lesion is rarely seen except as a post-operative condition. True in Case 1 but not in Case 2.

Nystagmus is one of the classical signs. It is a slow deliberate jerking movement to the side of the lesion when the patient looks in that direction with a gradual recession to the middle line. Present in Case 1; partially in Case 2.

Paresis of the homo-lateral muscles often shown in the form of lordosis is not due to pressure on the pyramidal tracts because there is no spasticity and the superficial reflexes are retained. True in both Cases 1 and 2.

This is rarely found with extracerebellar tumors for these are so situated as rather to cause pressure on the motor fibres in the brain stem with consequent crossed paralysis.

A most important point in differentiation between intracerebellar and extracerebellar disease is the time of appearance of these symptoms (ataxia and vertigo). In intracerebellar cases they appear early. In extracerebellar cases they appear late and are frequently preceded by symptoms of pressure on the seventh and eighth, and often ninth, tenth and eleventh cranial nerves.

There are more features to this very extensive subject; for instance one must always keep in mind the possibilities of lues and spinal puncture should be made, not only to determine the Wassermann reaction, but also the character

and tension of the spinal fluid. This will always give a clue as to the patency of the aqueduct and the existence of an internal hydrocephalus. One must always keep in mind uremic conditions and the urine should be tested for albumen.

The history often will give a clue as to the character and hence the location of lesion. Is it a hemorrhagic cyst? It is an arachnoid cyst of traumatic origin? Is it a fibroma? Or a tubercular glioma?

Hemorrhagic cysts might occur anywhere in or near the cerebellum. Arachnoid cyst of traumatic origin is of course, extracerebellar. Fibroma generally arise from the fibrous sheath of the eighth nerve and are extracerebellar. Tubercular glioma are intracerebellar and are often partially cystic.

Case 1 showed trouble both of the fourth and eighth nerve roots but this proved to be from pressure somewhat remote.

It must be remembered that the symptoms developed by intracerebellar trouble are pressure symptoms and that these pressure symptoms are the result of a rather diffuse and hydrostatic pressure which does not generally press acutely on one particular nerve root but diffusely on several, and indeed where the aqueduct is closed on the whole brain structure in general so that in many cases the symptoms resemble an internal hydrocephalus. One must weight all these symptoms and select the ones which are most prominent in order to guess the location of the lesion.

Presenting these cases to you you will notice in the man that there are absolutely no signs of the former trouble. One might expect that the traumatism on the cerebellar hemisphere at the site of the former operation would leave some signs of inco-ordination but there are none as far as I have been able to observe.

In the young lady you will notice that her pointing tests are still a little bit out, especially the left pointing test. She is also unable to balance herself on the left foot as well as on the right. These I attribute to the damage to the left cerebellar cortex as a result of the former large hernia. When looking straight ahead she shows no signs of paresis of the eye muscles but when looking to the left there is an internal strabismus of the right eye. This may be due to the indirect pressure tone on the oculomotor nerve.

In closing I wish to state that the diagnosis of these conditions is extremely complicated and the proper surgical treatment is certainly highly technical if carried out even approximately near Cushing's wonderful technic. Cushing gen-

erally taps the lateral ventricle as early as possible in order to release the pressure and stop the venous hemorrhage. This requires a separate trephine opening and is a delicate operation in itself.

Unless the general surgeon is confronted with the alternatives of immediate operation or death of the patient he may well hesitate to undertake these cases.

A PLEA FOR INTELLIGENT TONSILLAR SURGERY.*

C. H. LONG, M.D.

CHICAGO, ILL.

No apology is offered for presenting seemingly so ordinary a subject to this society for discussion and deliberation, because, there is no operation in the domain of surgery receiving greater attention by the profession today than that of the tonsil. It is discussed by the conservative and the liberal—by the careful and the careless operator. One group believe the tonsils are serving some important purpose in the animal economy and seldom disturb the general system; and that if it does, nature assisted by local applications will correct the disturbance. Other investigators are of the opinion that the tonsil is a useless part of the anatomy and should always be removed, like the appendix, no matter what the provocation.

Presented with this situation, we must admit that the tonsil question has not been definitely settled, nor can we expect its conclusive adjustment until the physiologist and pathologist teach us the function of the tonsillar tissues in health and disease. Recent studies by Dr. George Wright has illuminated this hazy subject to some little extent by the following contribution: He has shown that at the periods of the molar tooth eruption, namely, at the ages of two, six, twelve and seventeen years, the tonsils enlarge somewhat, returning to a normal condition after the complete eruption of these teeth. Wright regards this enlargement without infection as an evidence of the normal function of the tonsillar gland.

With insufficient data to place the tonsil operation on a scientific basis we can do no better than continue reporting our observations, investigations, and experiences—thereby making for a better understanding to distinguish between the operable and the nonoperable tonsil.

It will be quite unnecessary for me to mention what tonsils should be operated, but I

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deem it all important to point out the conditions which should contraindicate operations on the tonsils.

First: Never operate on hemophiliacs or bleeders.

Second: Never operate on syphilitics or when acute infections are present.

Fourth: Exercise great caution in operating at the extremes of age.

Hemophiliacs or bleeders are fairly common. Never neglect getting the clotting period of the blood, when the history points to this condition.

During the early part of 1917, Dr. Allen, then an interne in St. Luke's Hospital in Chicago, did some original work on coagulation of the blood for the nose and throat clinic. He found the percentage of hemorrhages in individuals following tonsillectomy was greater in those persons whose coagulation was normal than in those whose coagulation period was higher or abnormal; therefore, it would seem that the coagulation of the blood outside the body depends upon a different cause than the coagulation in the living bloodvessels. So far as the use of drugs is concerned, we have had nothing added to our knowledge of late, as far as I know.

As an illustration I will cite a case which came under my observation some years ago: A child's tonsils had been operated and six hours later she was dead from hemorrhage. The parents then admitted that a dentist had discovered her infirmity and had cautioned them about the dangers of bleeding from cuts and wounds, but they neglected to so inform the surgeon. Had this information been in the possession of the operator the results might have been different. At any rate an operation would not have been performed until the clotting period of the blood was known.

The clotting period can often be shortened by the use of remedies, especially a course of calcium-sulphide, and after the operation by applications of thrombo-plastin.

Dr. Richard Greer, formerly in the Department of Physiology of the University of Chicago thinks well of fibrin ferment or thrombo-plastin. This ferment was first introduced to the profession some two years ago by Dr. Hess of New York. During the year 1916 I had the National Pathological Laboratory of Chicago prepare this ferment and used it to some extent in tonsillar hemorrhage. In my experience, I have found it very effective when applied locally. I have had no experience giving it internally. Recently, E. R. Squibb & Co. has

made the ferment and put it on the market in a form that can be kept for several months without deteriorating. They recommend it internally as well as locally.

In considering syphilis, a physician would scarcely make the grave mistake of operation on patients in the first and second stages, but in the tertiary period it is different. There is no apparent indication of the disease. The patient frequently complains of sore throat and upon examination, hypertrophied tonsils covered with a thin grayish white membrane without ulceration is noticed. The cervical glands are usually somewhat enlarged. These findings are sufficient to suspect syphilis, especially if the person is an adult and had never complained of previous sore throat. In 1916 a man 41 years of age consulted me about a sore throat, stating he wanted his tonsils removed and to show he meant what he said, he paid me the fee in advance. Appearances such as the above caused me to suspect lues, but as he denied all knowledge of ever having had a primary sore, or any secondary manifestations, I decided upon having a Wassermann test of the blood. This proved to be strongly positive. Even with this evidence the patient refused anti-syphilitic treatment, but demanded an immediate operation; however, I delayed the issue, administering in the interval small doses of iodide of potassium, this being given him without his knowledge. At about this stage he developed a sore eye; there being no pain, he decided the infection was from dust and did not deem it necessary to ask advice. The inflammation not yielding to his remedies, he consulted me. When I told him it was a complication of syphilis, iritis, he completely surrendered and obediently submitted to the proper treatment. So far as I am aware, he is still enjoying his tonsils. Had I operated this man's tonsils as requested, there is no doubt I would have had a very unhappy experience. I learned my lesson in 1907, when a woman of about 30 years of age persuaded me to remove her tonsils. After having her in the hospital under observation for one week, and not suspecting lues, I complied with her request. At that time we were not making Wassermans in Chicago, the first one being made in 1908, by Dr. W. J. Butler.

These tonsils were so fragile and friable that a curette seemed more suitable than a knife and vulsellum forceps for operating. The hemorrhage following the operation was slight, but severe and protracted hemorrhages ten and

twenty days later led to a careful investigation of her life history; and it was decided she was a syphilitic, which was proved by properly directed treatment.

Surgical operations on the tonsils are not permissible during acute inflammations. In the abscessed variety of tonsil it is safer to wait until the abscessed cavity has been completely drained and a normal appearance is present before attempting operation.

The age of the patient has much to do with determining the method of operation. Speaking in a general way, up to the age of 12 years, I think a tonsillotomy operation is preferable to dissection or snare. In mentioning tonsillotomy I refer to an instrument that does a tonsillectomy and not a tonsillotomy. For example, a Sluder or some of its modifications. The La Force adenotome for the adenoids. After mastering the technic of these operative procedures tonsils are removed with great rapidity and thoroughness. Of course this necessitates a general anesthetic. While the tonsillotomy causes considerable traumatism, the child experiences little discomfort following the operation. For older children and adults I prefer the dissecting method of operation to all others. This can be performed with two instruments, a pair of curved scissors and a vulsellum forceps. The patient sitting in a chair, the tonsils are injected with either one of the following mixtures:

Cocaine Hyd. 1 gr.
Adrenalin Chloride 40 M.
Normal Saline M. cc., or

Novocaine 4 grs.
Adrenalin Chloride 40 M.
Normal Saline 200 M.

A complete anesthesia follows.

With novocaine there is no danger of toxic poisoning as occasionally is witnessed from the use of cocaine. This operation recommends itself by the absence of hemorrhage and ease of accomplishment and I believe will meet with the approval of those surgeons who become acquainted with its technic.

Dangerous complications following such operations are due in a majority of cases first, to negligence in diagnosis on the part of the operator; and second, to inexperience and a defective surgical technic. Some accurate and definite knowledge by the proper use of our eyes will determine the form, relation and attachment of the tonsil to the surrounding structures. By palpating with the finger and the

use of a hook we learn the tonsil's density and mobility.

It is not my purpose in this paper to say what tonsil operation you should perform further than to suggest that operation which is founded on sound surgical principles—the operation that will give the patient the least pain and discomfort, with the minimum amount of danger.

In conclusion I would suggest that an adequate study should be made of each case before determining the treatment. Any physician who advises nonoperative interference in marked mouth breathing children, bequeaths to that child a life heritage of faulty physique, whether it be a pigeon breast, a deflected septum, a deaf ear or a defective mentality. When an operation is decided upon, it should fulfil the following requirements:

1. It should be safe.
2. Complete.
3. Painless.
4. Bloodless.
5. Shockless.
6. Without complications, and
7. Without deformities.

Physicians should not be satisfied with their tonsillar surgery until they have attained the above standard of skill.

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PYELITIS IN CHILDREN.*

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In February, 1915, I was called to see an eight months' old baby girl, who had been suffering from an infection of the bowels for a week. This was accompanied by an erratic temperature reaching as high as 104 daily. On examination there was distinct pain manifested on moving the right leg, which the child kept strongly flexed. The diagnosis seemed to rest between a bowel infection with a possible appendix involvement and a hip joint disease. The stools had improved sufficiently to show that the continued temperature and other signs of a sick child could not be attributed to this course. Measures used did not improve the condition and the case was referred to a pediatricist.

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After reviewing the history, he requested that a urinalysis be made to ascertain the presence of pus, which was reported positive. Thus, the diagnosis of pyelitis at once was made, the fog was lifted and the whole case opened like a book.

My embarrassment was somewhat relieved when this same physician stated to me that he had a similar experience early in his practice, when a child of a well-to-do family was stricken ill and he floundered in the dark until a consultant not only relieved him of his predicament, but his patient as well.

This was my first recognized case of pyelitis in a child in nearly fifteen years of practice. In the two and one-half years since this, I have met with five cases.

Here, gentlemen, is the reason for this paper, to impress upon you the fact that there is such a condition as pyelitis in infants and that it is far more common than the average physician believes. Many of the cases of long standing infection attributed to the bowels and improper feeding that waste away and perish, are in reality an infection of the kidneys, which are neglected by carelessness in not making thorough examinations and the oversight in examining the urine. This neglect is a sad reflection on the physician of to-day and the only way to have it more frequently diagnosed and recognized is to dwell on it, discuss it, show the other men your mistakes so that it may leave an indelible impression that every physician will be on his guard.

A brief review of the disease at this time will not be amiss. Urinary infection occurs in 1 per cent of all cases of childhood. Pyelitis is one of the most common of all the so-called obscure causes of fever in infancy and childhood. It was first described by Escherich in 1894. It predominates in female babies, some putting the ratio as high as 10 to 1. In my own experience, all six cases were in girls. It occurs at any age, although the most susceptible age seems to be between the sixth and twenty-fourth months. Two of my cases were in children over three years. The colon bacillus is the organism usually found, although in cases of long duration the tubercle bacillus have been demonstrated.

The theories as to the entrance of infection to the kidneys, are: First, that the bowel discharges laden with colon bacillus easily come in contact with the female genitals and enter the urethra passing into the bladder and through the ureters, localize in the renal pelvis. This is termed ascending infection. The other

theory is that the infection gains entrance directly into the lymph and blood streams. The mucous membrane of the vulva and the urethra being irritated or broken, the bacteria reach the periurethral and periureteral lymph streams which have free communication with the kidney. This is also true of the mucous membrane of the intestines, and the colon bacilli may reach the pelvis direct without any involvement of the urinary tract below the kidney.

The intestine is not the only source of infection as cases are reported as arising from otitis media, infected tonsils, and bad teeth. Thus, any condition that will lower the resistance of the child may be a predisposing cause.

The urine does not always show pus, as occasionally the ureter becomes plugged with infected material; nor does the presence of pus always denote a pyelitis, as the kidney is capable of excreting it without becoming affected. It is a necessity to make repeated examinations of the urine that the condition will not be overlooked.

This is collected in infants by various methods. The watchful waiting policy is a sure one although somewhat tedious. Attaching a wide mouthed bottle by adhesive strips to the pubes and perineum is quite satisfactory, or placing the patient on a rubber sheet with a slight depression in the center from which it may easily be collected. The urine shows pus, is acid, and occasionally red blood cells and casts are present.

The pelvis of the kidney is the part usually involved, but in cases of long standing or of a recurring type due to the lowered vitality the deeper structures are invaded.

SYMPTOMS.

The acute cases have few marked symptoms. The most important are the onset with a chill and a high temperature. It is pointed out by Smith that a chill in a child under two years of age is strongly indicative of urinary infection. The temperature may rise to 104-5 and this with an extreme restlessness are the most striking characteristics of the disease. The findings are few and this negative condition is one that should make the attendant suspicious of the urinary involvement. The bladder and kidneys are not especially tender, neither is there anything unusual in the abdomen. The detection of frequent and painful micturation is an aid. But the point to be impressed is that, having a child, with a temperature of 104 or over, extremely restless, which condition continues, after ordinary measures of cleansing

the bowels and correcting the diet have been done and no other manifestation exist, examine the urine. This is the picture in the early cases, but the longer they exist, the more pronounced the symptoms and the greater the involvement of the tissues. The child becomes more toxic, is listless, digestion is deranged, develops anorexia and inanition and either reaches a chronic state with intervals of improvement and relapses or gradually passes to a fatal termination.

The prognosis can be said to be good, but many factors are to be considered. The severity of the infection, the length of time it has existed, and the resistance of the patient.

The early cases yield readily to treatment with less possibility of recurrence, but they should be watched and treated for a long time after the symptoms subside.

The chronic or neglected cases frequently die not from the urinary infection so much as from intervening conditions that arise from the lowered resistance of the patient.

TREATMENT.

Prophylactic; accepting the theory of ascending infection, it is advisable to instruct mothers and nurses to cleanse infants carefully, that the urethra and vulva should not be contaminated by feces. This is especially important during warm weather when diarrheas are frequent.

GENERAL.

The most important point in treatment is the necessity of large quantities of water and fluids in general, thus keeping the kidneys thoroughly flushed. Nursing babies should be kept at the breast as the mother's milk is particularly favorable to combat infection and maintain the child's resistance. Nourishment should be taken in abundance; those of liquid nature and an alkaline base, as it is essential to maintain and fortify the system against a deeper bacterial invasion. Malt soups and vegetables are highly recommended.

Medicinal measures are quite important. The greater factor here is to make the urine alkaline and keep it so. For this, potassium citrate has proven the best agent. This is given in large doses, 90 to 120 grains daily and continued for a long time. Hexamethylen in one grain doses is excellent but can not be used for any length of time, owing to the irritability it produces. This is also true of salol. Cathartics and close observation of the bowels is, of course, a necessity.

Vaccines have proven of value in some hands,

while Abt states he has not found the slightest benefit from them. It would appear that in the presence of a pure culture infection like the colon bacillus we should have an ideal condition to prove the merits of this form of therapy. In two of my cases I used stock vaccine of a colon bacillus and felt that I derived some benefit in the reduction of temperature at least, if not in the shortening of the disease.

In conclusion, permit me to emphasize again, the frequency that this disease occurs. The necessity for more thorough examination of babies, the importance of the examination of urine, the early recognition of the infection. Seek and ye shall find.

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VESICLE CALCULUS.*

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I have chosen from my varied experiences in medical service in Mesopotamia, an affection which is most common over there and quite uncommon in this country, making it therefore a suitable subject to bring before you. I speak of Vesicle Calculus.

During my college course at the University of Michigan I had only one opportunity of seeing a stone in the bladder, but during my sojourn in the East I operated upon over seven hundred of these cases.

There have been many theories proposed regarding the etiology of this disease. The most commonly accepted one is that the salts of the drinking water are dissolved in the blood, filtered by the kidney and deposited in the bladder, which crystals formed the nuclei, around which cystic calculi were encrusted. We know that any foreign body forcibly inserted into the bladder from without, will be the nucleus around which different deposits are formed. We know that one kind of crystal is deposited if the urine is acid, usually uric acid but sometimes oxalic and the carbonates and phosphates are deposited with alkaline urine. The former calculi being much harder than the latter.

In many instances in this country kidney gravel or kidney stone passing down to the

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bladder has been unable to pass the bladder sphincter and vesicle calculus has resulted. When we are dealing with this stone in the kidney there is usually a history of renal colic and blood in the urine, though neither of these need be present. One is quite prepared to grant that the kidney may excrete these salts which have become absorbed into the blood and that these excretions crystallize and form the renal and later the vesicle calculus, but that will not explain the fact that in certain localities this disease is extremely frequent. For instance many of my cases came from certain marshy localities along the Tigris and Euphrates rivers while above and below these sites the people were comparatively free from the disease. It is just at this point that I want to say that the researches that have been made in tropical medicine, or perhaps I had better say in parasitology, during the past few years have tended to further our knowledge as to the action which certain worms might play in connection with the formation of vesicle calculus. When I first studied bilharzia in the laboratory of tropical medicine in Liverpool, I learned of its affinity for the mucous coats of the bladder and rectum, and later when I came in daily contact with such a variety of vesicle calculus in Mesopotamia, I was able to work out with the microscope the theory that this miracidium was the cause of a great deal of the vesicle calculus in this region.

For several years I recorded the localities from which these cases of vesicle calculus came and remarked that I had about as many cases of marked irritability of the bladder where no stone could be found as I had of the true vesicle calculus. There are peculiar lines on the face of those affected with bladder trouble which are almost pathognomonic and it often occurred that I found men giving symptoms of stone and yet upon sounding several times by different methods I was unable to detect its presence. The symptoms were characteristic: blood and pus were often present in the urine as was that peculiar pain at the end of the penis after micturition. A few years ago I began to read a good deal about bilharziosis as it occurs in Egypt and determined to examine my patients more carefully for the presence of this parasite. In a case which I saw in Liverpool where we demonstrated the bilharzia there was marked chyluria but in my cases it was seldom if ever present but the blood and pieces of spongy tissue which was passed after sounding these patients was full of bilharzia ova. I then realized that a large part of these bladder cases were

suffering from the bilharzia worm and that the nucleus of the stone was undoubtedly formed from an accumulation of foreign bodies in the shape of mushy clumps of bilharzia tissue.

In order that you may better understand the bilharzia worm (or *Schistosomum Haematobium*) let me sketch briefly its life history. Bilharzia worm is endemic in Egypt, the Soudan, and in west parts of Arabia. It belongs to the group of Trematodis but is distinguished from the majority of this group by having male and female separate individuals. The male worm is about 1 cm. long, milky white in color, cylindrical in shape with tapering extremities. Microscopically its body seems to be studded with minute warty projections tipped with short bristles. Two suckers, one behind the other are on the under surface of the body near the anterior extremity. The body is thin and flattened, the lateral margins of which are folded toward the ventral surface to form a long canal, the gynecophoric canal, in which the female lies during the period of sexual activity. The female is longer than the male worm and is often found lying within this gynecophoric canal with the anterior and posterior ends protruding although she can completely withdraw herself into the canal when occasion demands.

In the human bodies these worms are found very small in size in the portal and mesenteric veins but here do not seem to be sexually active although the male worm carries the female worm with him. The other common habitat of the worm is in the vessels of the bladder and rectum and here it is that the worm is fully developed and sexually active. It would therefore appear that the worms travel against the blood stream from the liver to the mesenteric veins and from the vessels of the submucous tissues of the bladder and rectum, and less commonly reach the lungs and general circulation.

It is therefore in the walls of the bladder and rectum that this worm deposits its ova and as a single pair of worms produce hundreds of ova, one can see that where there are a large number of these worms present great proliferation of the mucosa is produced, and a spongy tissue which resembles papilloma or epithelioma in appearance is produced. These papilloma are exceedingly friable and bleed easily so that the contraction of the muscle walls of either of these organs produces severe hemorrhage. The ova varies from 15 to 40 microns in length and about 10 to 15 in width. The peculiar anterior spine is noticeable and when these ova come from the bladder it seems to be centrally

located, anteriorly, but ova coming from the rectum are peculiar in that they have a lateral spine. If some of this spongy tissue which is passed in the urine is placed on a slide under the microscope and a drop of water added, the bilharzia ovum is seen to burst its shell and we have the miracidium presenting itself with a sharp anterior spine and the score or more cilia laterally and posteriorly, propel the miracidium through the water quite rapidly. The cycle of the bilharzia worm is still uncertain but the Welcome laboratory in Khartoum, Egypt has advanced the theory that man is the intermediary host. There are two ways by which this could be accomplished, one is through drinking water and the other by the penetration of the miracidium through the skin, thus finding its way by the blood stream to the liver. The ova, whenever they are passed in the urine and touch water, become active and with their sharp anterior spine and cilia by which they are actively propelled are able to penetrate the epidermal tissue. This latter theory is upheld by medical men in Egypt, since they find it is the people in the rice fields or swampy regions who are most affected with this disease, for these men and boys go barefooted to a great extent, and work in the irrigated fields, while women living in the same district are affected to a much less degree. So it is with the conditions about where I worked. Nearly all the cases of stone came from the swampy region of the Euphrates valley and less than 1 per cent of the women were affected.

TREATMENT.

In the treatment of vesicle calculus we find that when patients are afflicted with both bilharzia and calculus, the removal of the cause of the bladder irritation, along with proper explanation of how to keep away from the infected region, will go far toward affecting a cure. When only the spongy growth is present incision by the perineal lithotomy route, with a curetting of the bladder, removing the spongy and hypertrophied tissue is practised by physicians in Egypt. I have tried it myself with varying results, allowing the bladder to drain through the perineal incision until the fistula heals spontaneously. If there are complications of strictures, sinuses and fistula along with stone, it is best to treat the former first and after cleaning out the fistula and sinuses we dilate the urethra and then the removal of the stone can be attempted. Fistulas are the most common complication of bilharzia and I have seen the superpubic and perineal region as well as the scrotum riddled with fistula leading to

the urethra and bladder. Often times a spongy growth projects from these openings, and not infrequently these are the cause of epithelioma in this region.

When a patient arrives complaining of calculus of bladder we put him through a certain routine before operation. When we find the urine acid there is as a rule no bacterial infection but if it is alkaline it is usually cloudy and full of pus. We wash the bladder once a day with warm boracic acid or normal salt solution; in fact we made it a rule to wash out the bladder at least once a day about three days previous to operations and if the infection is very bad we use daily bladder washings for a week, when we find that the urine generally clears up to a very marked extent. The method of washing the bladder is very simple and efficient. We insert a rubber catheter to which we attach a rubber tube to which in turn is attached an 8 ounce funnel filled with boracic acid solution. By raising the funnel we pass solution into the bladder and by lowering it we fill the funnel with the urine and water, and we can refill and wash it as often as we like until the solution returns as clear as when poured into the funnel. We can also ascertain the capacity of the bladder, and by passing the sound when the bladder is filled one can invariably detect a stone if present and can find out its size and general character in a great majority of cases.

Choice of Operation.—Lithopaxy or crushing of the stone is preferred by all the operators in India and Turkey who do any large amount of work. As proficiency in this method increases it is by far the operation of choice. The patient remains in the hospital only five or six days in all and as there is no cutting, the patients themselves are more than pleased at the quick method of bringing relief and will invariably flock to the doctor who uses this method. However, in England and America since there are a much smaller number of cases, the cutting method is generally employed. There are several methods of operation and I will not burden you with their description but will point out to you what modifications of the superpubic operation I have used. The text books tell us that the medium and lateral perineal incisions are preferable, excepting when the stone is of large calibre, but I have tried them all and next to the lithotrite I prefer the superpubic operation. If the bladder is comparatively clean a few days washing will fit it so that when we open the space of Retzius we have little to fear from its contents. We first place a catheter in the bladder and fill it with nearly eight

ounces of warm boracic solution and have dilated the rectum by injecting a few ounces of water in the Barnes's bag, so when we come to the bladder through the superpubic incision we find it presenting, and simply push up the fold of peritoneum with sterile gauze, pack on either side of the bladder, catch the bladder with a sharp hook, and then pass two large silk ligatures through its walls, which ligatures we clamp. The assistant holds these on either side while the operator plunges the knife length wise through the fundus of the bladder, carefully avoiding the large vessels.

The finger is at once inserted and the size and character of the stone determined, after which the incision is enlarged toward the fundus and the calculus removed with the stone forceps. The wound is then flushed from above and the bladder partly filled with normal saline solution. The bladder is then sutured with fine catgut inverting the mucous membrane and catching the walls with the serous coat. After this we test the bladder with warm salt solution and wash out all blood clots, taking precaution not to fill the bladder too full lest the mucous coat of the incision should be everted. The muscle which was simply divided with the handle of the scalpel is sewed with catgut and the final skin sutures are of silk worm. After the dressings are applied we untie the catheter and see that the urine escapes freely from it. This catheter is held in place with adhesive and is changed about the third day after operation. My only modification of the usual procedures in these cases is that I leave no drainage from above and I am careful that good drainage is obtained by the catheter. With this method the catheter is removed about the fifth day and the stitches the eighth. When a drain is left the patient has an objectionable fistula in the superpubic area, which takes a long time to heal and is a most tedious and objectionable dressing.

In case of very severe infection with a very large stone where superpubic operation is necessary, I generally made a transverse incision through the skin and use two rows of sutures in the bladder wall, using very fine catgut for the mucous lining and a second row of Lambert sutures through the muscle and serous coat of the bladder. This incision obviates extensive gaping of the wound by the pulling of the rectus muscle which thing is bound to occur when infection gets into a longitudinal incision in the median line.

THE TREATMENT OF FRACTURES AND RESULTS OBTAINED AS OBSERVED IN MILITARY HOSPITALS OF AUSTRIA.*

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ISHPEMING, MICH.

Pirogoff has coined a word which may be used as defining War, he says "War is a Traumatic Epidemic," and as in the past most epidemics have concerned the internist so does this present world wide epidemic concern the surgeon for it falls to the lot of the Military Surgeon to help keep the morality rate of the wounded as low as is possible and to return over 90 per cent of all wounded soldiers back to the front. This is being done in both Austria and Germany.

It is repeatedly said that "war surgery is civil or peace surgery on a huge scale" but it has been our experience in serving in Austria's largest military hospital, one containing 10,000 beds, located in Bohemia, and equipped as one may imagine with most everything that is modern in the field of medicine, that even here the surgeon finds himself working under difficulties and cannot do the good, clean surgery as is being done everywhere at home. This is due to several causes: First and of most importance is the time of arrival of patients after having been wounded, being from three to five days in most cases. Second, every case received by us and having an open wound was infected and but few had received any medical care while enroute. Third, inefficient and insufficient intelligent assistance. Fourth, scarcity of medical supplies. Fifth, the question of time, each and everyone having too much to do.

We have had in our section, wounds of all description both large and small, fractures of every known variety and especially of long bones, infections, varying from a mild non-febrile to the most severe forms. In our treatment we have tried as many different methods as could properly and with safety be carried out, favoring that particular kind of treatment as produced best results in our hands.

In the care of fractures, and these were by far the majority of our cases, the aim was to apply extension and immobilization as early as was possible, this however only after an X-ray picture had been made and the nature of the fracture better studied and understood.

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Plaster of Paris casts were seldom used in femur fractures with large open or multiple suppurating wounds.

Here a posterior splint, or the limb in a hammock swing with extension applied either with adhesive plaster or mastesol (1) seemed to us the better method. Prof. Thöle (2) says that when a patient has multiple wounds such as made by numerous small American grenade or hand grenade a plaster cast serves no purpose. In these cases the patient very often develops fever and complains of severe pains, with abscess formation or constriction. He further warns against suspending a badly infected limb on the theory that through the lymph and venous circulation the infection travels centralwards. In these cases he recommends a horizontal suspension or with femur in semi-flexion.

In a fracture of the femur with a large suppurating wound high up on the posterior aspect of the thigh the choice of any particular method of extension and fixation is very difficult to make as no method is all perfect. By using a posterior wire splint (Cramer) or a modification of same as recommended by Prof. V. Eiselsberg with sufficient windows cut into same to prevent pressure on wound the case could be treated by lifting him onto a horse while in bed, and here the patient can help himself, not a little, and in this manner the dressing can be changed with but little pain and discomfort. Even here a perfect apposition which is most desired cannot be maintained as the splint must be removed at each dressing. A decided advantage to all and especially for the benefit and good of the patient is that the dressings need not be changed for three or four days when no fever is present and the general conditions of the patient is good. This not only gives the patient undisturbed rest but saves dressings and time and labor. And this is an all important economy practiced in every European War Hospital.

Fractures of tibia and fibula were treated on the same principle as were femur fractures. However in these cases it is not so difficult to follow out a certain course of treatment and the results are usually more satisfying than in the case of fractures of upper third of femur. For extension and fixation one may use several methods: Bucks, Double Incline, Hammock Swing, Pulley Splint, Steinmann Pins, Schmerz Clamps, or Klapps (3) wire extension from calcaneus.

The Steinmann pins have been tried but usually with discouraging results, especially were the results bad if the pin or peg was driven through the bone. Our experience has been

only to see the patient suffer intense pain, the nails becoming loose before union takes place, and the infection that so often follows. Goldammer (4) and many others have discarded the Steinmann pin fearing infection and fistula formation; they use instead the Schmerz clamps or wire extension of Klapp.

Fractures of the upper extremities were treated whenever possible with ambulatory splints such as are described and illustrated by Dr. J. R. Eastman (5), and it has been our good fortune to follow out and continue observing the patients treated by Dr. Eastman and his associates at Vienna during the winter and spring of 1917, and the results obtained and the apparent comfort given the patient has surely been very gratifying.

At the conference of the Military Surgeons of Germany and Austria held at Brussels April, 1915, Prof. Körte and Dr. Sebroth recommended plaster casts for immobilizing fractures and especially a straw plaster cast. The technic in application of the straw cast is briefly as follows: The limb is first padded, though not too much, and a few rounds of bandage applied, and over this and on all sides are laid long strips of straw, then a few layers of plaster or starch bandage are applied, and same immediately molded to the form of the limb. Windows are cut over the open wounds and though these may be multiple and large the cast is not weakened. It dries quickly, is an excellent cast when involving the hip joint, is cheap and always easily obtained.

Bridged plaster casts reinforced with aluminum rods or bands are much used and especially are they adaptable for the transporting of patients from field to hospital or from one hospital to another.

The question of amputation of a badly fractured and badly infected limb is hard to answer. Some are too conservative and others too hasty. V. Röthe (6) has given the following conditions for amputation:

1. When the bony and soft tissue are so destroyed that further conservative treatment is useless.
2. Gangrene as a result of arterial injury or fast bandaging.
3. Active progressive infection, general sepsis, tetanus and gas phlegmonae.

As the cases referred to have all been infected it is quite proper to discuss briefly the method of treating these suppurating wounds. The usual treatment of any infection; drainage, irrigation with some antiseptic solution and the application of a dry or moist dressing is still probably the most common method of treating

infections and may remain so for a long time. The open air sunlight method of dressing wounds has its advantages and is rapidly becoming more popular. It does away with the necessary change of dressing, and the granulation tissue is not destroyed with the removal of the gauze, the patient is more pleased, and the saving in material; secondary hemorrhages are immediately seen by patient and attendants and the saving of time to the doctor and others. Of the different antiseptic solutions in use at the present time there are probably three which to us have seemed the most desirable and which produced the best results, hydrogen peroxide, Burrow solution (7) and the now famous Dakin's solution. Peroxide and Burrow solution were much used as there was plenty of it and the results were satisfactory. Alcohol placed in wound was also good but this was too difficult to obtain and was therefore used but little. The use of the Dakin's solution we did not properly understand until we came to Vienna and continued the methods adopted by Dr. Eastman. Foreign bodies such as projectiles, bone splinters, bits of clothing, etc., are first removed whenever this is possible and when they act as a source of infection or interfere with the natural functions. The removal of foreign bodies has been made much easier through the use of the Bettman operating cryptoscope (8).

Much has been written both here and abroad in regard to the use of Dakin's solution but especially have the Germans given it a fair trial and the following is a brief summary of the results obtained by them. Dr. Winkelmann (9) late in 1915 received a short report with formula of the solution following a meeting of French and English Surgeons on the Western front. He immediately decided to try same at his hospital in Barmen and began his series in November, 1915, and gave his conclusions in October, 1916. His patients consisted of over 1,000 with and without fractures, infection of joints, gas burns, especially gas phlegmonae, boils, etc. The cases varied from one to ten days in age i. e. after having received the injury. He has also treated 1,000 cases of gas burn in six weeks without a death. He urgently recommends Dakin's solution to surgeons treating war injuries and predicts within a short time the handling of war injuries with absolute safety. The length of treatment is shortened, it is absolutely safe, and the pain is much diminished, and lastly, it too saves much supplies. The formula used by Dr. Winkel-

mann differs a little from that used by Dakin and is as follows: Calcium chloride 200. Soda crystals 250. Boric acid crystals 160. Water 10,000.

CONCLUSIONS.

1. War surgery can be made into peace surgery and called such only when conditions and environment are the same. Proper treatment of injured at front and in field hospitals; rapid transportation of patients to Base and Reserve hospitals; distribution of the wounded according to the nature of injury, similar injuries and fractures for instance, placed in a section containing X-ray, etc., that the use of the X-ray may be had in studying the result of fractures without transporting the patient, bed and all for blocks and into the roentgen room. Sufficient supply of material, and help in proportion to the number of patients.

2. The treatment of fractures to be followed out on the principle of extension, immobilization and adequate drainage without delay. Use that method which gives best results and such splints, etc., as can be found. Patience is a good asset. Many badly infected femur fractures unit and stop discharging only after months of patient treatment. Amputate only when all other treatment fails and a life can thus be saved. Repair of badly united fractures should not be undertaken until months after the wound has healed.

3. The use of air and sunlight should be encouraged. It not only saves material which is expensive, and often impossible to obtain, but is also time and labor saving.

4. And though Dakin's solution is not the only methods of treating infections of war it would be well for all to study and learn its use. And as Dr. Eastman says "Any Military Surgeon who goes abroad without thoroughly understanding the use of Dakin's solution does both himself and his Country an injustice."

REFERENCES.

1. Mastisol Powdered Resin 5, Alcohol 50, Benzoin 25 and Venice Turpentine 5.
2. *Kriegs Chirurgische Hefte*, Band C. 4.
3. *Munchen Med. W.*, 1914.
4. *Kriegs Chirurgische Hefte*, Band XC. V. I, 4.
5. Eastman: *J. A. M. A.*, July 28th, 1912.
6. *Kriegs Chirurgische Hefte*, Band XC. V. I., 4.
7. Burrow solution 4 per cent solution aluminum acetate.
8. Bettman: *J. A. M. A.*
9. Winkelmann: *Kriegs Chirurgische Hefte*, Band C. I., 4, October, 1916.

The Journal

OF THE

Michigan State Medical Society

ISSUED MONTHLY UNDER THE DIRECTION OF THE COUNCIL

Arthur M. Hume, Chairman.....Owosso
Guy L. KleferDetroit
W. J. Kay.....Lapeer
W. J. DuBois.....Grand Rapids

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October

Editorials

INGUINAL HERNIA.

The recent physical examination required by the draft regulations revealed a somewhat surprising prevalence of inguinal hernias. In connection therewith it is interesting to review a discussion by Davis of 1500 cases operated upon by the staff of the Massachusetts General Hospital from 1908 to 1914. This discussion does not include the acutely strangulated hernias.

The following are the statistics presented: The youngest was ten months, the oldest 77 years; eight were over seventy; 397 were between twenty and thirty. There were 1,388 males and 112 females. In 1,244 cases one side was operated upon; in 256, both sides. In the 1,500 cases there were 1,756 operations. Bassini's operation was done 834 times; Ferguson's 764; Halsted's fifteen times; in 24 instances the technic was varied. In sixteen cases orchidectomy was done for maldescended testicle. In fifty cases the undescended testicle was brought down into the scrotum; in one case it was put back in the abdominal cavity.

The bladder was injured in two cases and sutured without ill effect. The iliac vein was never injured; the vas deferens was cut seven times. The intestine was opened twice, sutured without bad effects. The mortality was 0.53 per cent. Complications, non-fatal, were noted in 438 cases, the most important being sepsis.

The most interesting part of the paper is the end results in 754 of the cases which were followed up for a period of years. Eight patients

died in the hospital after operation; eleven died of intercurrent disease within a year; 577 are reported as entirely well, or cured. Ninety-nine were classed as relieved; fifty of these were cured of the hernia but presented subjective symptoms of pain in the wound, or numbness in that region. Seventeen relieved showed a bulging in the line of the scar; eight had varicocele; three had atrophied testicles; two had keloid in the scar; one had a persistent sinus. Fifty-nine had definite recurrence within the year; five had double recurrences; two are known to have recurred, making a total of sixty-six recurrences or 8 per cent of the cases traced. It is likewise interesting to revert to the literature and ascertain that in the New York Ruptured and Cripple Hospital there were 9 per cent recurrence in 1,002 operations.

Operative cure is attended with a low mortality that may almost be conceded as nil. Permanent radical cure may be confidently looked for in the vast majority of cases. Successful results will be secured more frequently if the aseptic technic is rigidly observed, clean dissections made, conservation of nerve supply enforced, high ligation of the sack employed and sutures so inserted as to secure careful coaptation without constriction of tissues and perfect hemostasis.

With these recent deductions before us it becomes incumbent upon the physician to recommend operation; the surgeon is likewise charged with the responsibility of careful observance of modern principles. The individual with a hernia is beginning to realize what comfort and relief is offered him and as this information becomes widely disseminated there will result increasingly larger numbers who present themselves for operation.

FEET AND SHOES.

Now would seem to be a very appropriate time for the medical profession to call for a reform in feet and the fitting of shoes.

Popular reforms of most any old thing are always with us in great numbers and just now when national conservation is an urgent necessity there are being urged on us more appeals to revolutionize many of our former habits of peace than we are able to appreciate or to bring into effect.

However there seems to be a number of reasons why the united influence of the profession should be used to remedy the evils involved in the universal manufacture of shoes which do not fit the normal human foot.

To the war can be laid many influences for good and evil. This brings us to the question of feet. For active work a shoe must allow a foot to perform its proper functions. This has been fully recognized in the regulations and an Army shoe has been designed to give the foot its full free purpose of bearing the full body weight without restraint.

The thousands of young men who are about to undergo intensive physical training with their feet cased in shoes designed to conform to the normal human foot will soon bear testimony, both objective and subjective, to the proper idea. Many of the thousands of physicians who are undergoing the same kind of drill now are for the first time realizing what a well fitting shoe means. They in turn are soon to have thousands of foot problems to solve in recruits.

These men will come home in time full of knowledge gained by real experience. They will deem it their duty to advise patients in many hygienic measures for health never considered proper or necessary heretofore, and the least of this will not be in the matter of feet.

A person in distress is quite apt to heed suggestions pointing toward relief.

Observe closely the endless number of deformed and misshapen feet hobbling along any town or city street. These feet, especially the female variety, come across the thresholds of our consulting rooms sooner or later.

Can you do anything to give the nation better feet?

O. H. Cox.

PHYSICIANS AND SURGEONS' LIABILITY INSURANCE.

Pursuant to its policy of placing before the insuring public, the latest development in indemnity protection, the *Ætna Life Insurance Company*, of Hartford, is at present submitting to the doctors of Michigan, in a new form, an old type of protection interesting to that profession, i. e., Physicians and Surgeons' Liability insurance.

The Policy is written on a so-called "group plan." It is issued only to members in good standing of Medical Societies. A single policy only is issued, written in the name of a group of the members of the designated Medical Society. It requires that before it shall become effective, a certain percentage of the membership of the society shall adopt this form of insurance and become members of the group. It is in no event written for less than a group of fifteen, and in societies of large membership, requires that at least 25 per cent participate.

A careful investigation has shown that possibly the chief cause of malpractice claims is indiscreet criticism of a physician's or surgeon's work by another physician or surgeon. One of the chief advantages of the plan is that in the formation of such groups, it will build up a "get together" spirit, and thereby, this cause for claims will be largely controlled.

In short, "Co-operation" is the essence of the "Group Form Plan."

Both the policy and its plan have been submitted in detail and favorably reviewed by Dr. Frank B. Tibbals, Chairman of the Medico-Legal Committee of the State Medical Society, and by Mr. Herbert V. Barbour, of the firm of Douglas, Eaman & Barbour, of Detroit, Attorneys for the State Medical Society. This firm has also been attorneys for the *Ætna* for a number of years, and Mr. Barbour will have personal supervision of all cases arising under *Ætna* policies. His wide experience with this type of litigation will insure to Group Members an adequate and intelligent defense.

The policy provides full and complete protection against every civil claim for malpractice brought by any person, based on any kind of alleged malpractice, error or mistake occurring in the practice of the assured's profession, until (if ever) it shall be shown that the damage was caused by the assured or any assistant of the assured while to any extent under the influence of intoxicants or narcotics or while engaged in or in consequence of the performance of an unlawful (criminal) act. Unlimited defense, including appeal bonds as security where necessary, is a provision. Over and above this item, its limits of indemnity vary from those of some other companies in this line, in that they are \$5,000 for the individual case, and \$15,000 for annual claims, instead of \$15,000 for all claims that may develop during the term that the policy is carried, irrespective of the length of time.

One of the most important features of the policy is its special provision relating to the adjustment of claims, the interests of the physician being carefully safeguarded, so that all cases will be properly handled to conserve the best interests of the doctor and medical profession as a whole. The Company can not settle in defiance of the assured's wishes.

The Group Form Plan is now being presented to the various County Society Memberships in each county, by the Company's representatives, and the plan should receive the fullest consideration of the Medical profession.

Editorial Comments

The amount of material and limited facilities has necessitated the exhibition of considerable ingenuity on the part of the medical and nursing departments of the Allied armies and Red Cross Units. Many of our erstwhile surgical methods have been amended, new methods devised and details of treatment simplified. We at home are commencing to have conveyed to us the results that are being attained and as reliable reports of methods and principles are disclosed their adoption is becoming evident in hospital and civic practices. We have become fairly conversant with the Carrel-Dakin method of treating infected wounds. The paraffin treatment of burns and granulating areas appears to be a rational procedure. Recently there comes to us another method of treatment of infected wounds by means of a paste called "Bip."

It is reported that war hospitals in England have extensively employed it and report remarkable results. The method in general is to clean these infected wounds of all sloughing tissue and debris; to then wash it thoroughly with alcohol and then fill it with "Bip" which is composed of one part of bismuth subnitrate, two parts of iodoform powder and liquid paraffin sufficient to make a smooth paste. The wound being filled with this paste is then sutured, protected with a sterile dressing and left undisturbed for a week to ten days when complete union and healing is reported in a goodly percentage of cases. We have had no personal experience with this method and simply impart it for the benefit of those who may have occasion to employ it. We shall be interested in case reports and personal experiences. An appealing feature is the lack of necessity for doing frequent dressings. We are also reminded of its similarity to the old "Morhoff's Bone Plug."

Indirectly there has come to us some questioning as to the legality of the State Society spreading a special assessment for the purpose of creating a Patriotic Fund to be employed for furnishing fraternal assistance to our enlisted members. We have not for a moment paused to consider the legality phase of that action. We have been content to look upon it in a broader light, relegating technicalities and constitutional provisions to forgetfulness. We believe the action to be one of inspired patriotism and expression of organizational desires of collectively exhibiting a spirit of fraternal in-

terest and willingness to do "our bit" to encourage and aid those of our number who relinquish home ties, practices and personal comforts to serve their country where these services are so needed. We are unable to conceive how any of us who are without the Army or Navy medical departments can conscientiously object to the creation of such a fund or who would refuse to contribute their allotted assessment. It is the least that we can do. The remuneration of a Lieutenant or Captain in the medical corps is meagre indeed and those who have not acquired a reserve competency may be assured of the fact that their dependents will not suffer or want during their period of service.

If there are any who feel that they have grounds for objection to this assessment we will welcome their frank statement to the end that all doubt as to the purposes of this Patriotic Fund may be dispelled.

The publication of the Clinical Transactions will be resumed in our next issue. A lapse of one month is occasioned by summer vacations. Incidentally, we again extend the request for contributions of original articles. Please remember we are dependent on our members for these contributions, especially as there is not now available the papers that result from our annual meeting.

There has been much that has been said and written about cooperation and efficiency. These words are becoming so commonplace that their impressiveness is being lost. Cooperation is becoming a passive state and half hearted effort is endeavoring to pass under the guise of efficiency. A yoke of habit is manifesting itself and the rut of repetition is characterizing many of our personal activities.

As our winter sessions are being resumed we plead that the first session witness the construction of definite plans for future meetings. Plan to secure the attendance of every doctor in your district and delegate to each some definite duty or responsibility. Plan to invite essayists who have more than their own paper at heart and who will add an additional inspiration to society activity and life by discussing with your members the particular needs of your organization. Your officers cannot be expected to carry the burden alone, they need and want your assistance. Therefore we urge that you individually exemplify the true meaning of these words—cooperation—efficiency.

We have not received any communications from members in service in training, mobilization camps or "over-seas." We welcome the contributions of such correspondents because those who are doing their "bit" at home are eager to learn the experiences of those in these services. We therefore solicit such contributions to our pages.

The postponement of our annual meeting should not witness a waning of organization spirit. It is suggested that the respective Councillor Districts plan the holding of one or two day sessions of papers, discussions and interchange of friendly relations. The several county societies comprising each district can, with little effort and much profit, readily perfect the arrangements for such district meetings. Don't wait for someone else to start the movement. Write to the several secretaries, get together arrange your dates and programs and then work like beavers to put it across. In the end you will be rewarded and personal profit will accrue. What District will be First.

The transference of the Clinical Congress of Surgeons from New York to Chicago was deemed expedient under present conditions of National affairs and activities. Chicago surgeons have risen to the occasion and will present instructive clinics. The sessions in the evening will be addressed by men who have had extended experiences in war surgery. The date is October 22 to 27 inclusive.

There is a quart of truth in that old jingle about "A little nonsense now and then," etc. If it were not for this occasional nonsense, the vital statistics recorder would have a dry time indeed. Here are sample of some of the things he finds on death certificates under the heading Cause of Death. These are bonifide instances.

"Went to bed feeling well, but woke up dead."

"Died suddenly at the age of 103. To this time he bid fair to reach a ripe old age."

"Do not know cause of death, but patient fully recovered from last illness."

"Deceased had never been fatally sick."

"A mother died in infancy."

"Died suddenly, nothing serious."

"Pulmonary hemorrhage—sudden death (Duration four years.)"

"Kick by horse shod on left kidney."

"Don't no. Died without the aid of a physician."

"Deceased died from blood poison, caused by a

broken ankle, which is remarkable, as his automobile struck him between the lamp and the radiator."

"Blow on head with ax. Contributory Cause—Another man's wife."

Correspondence

Wolverine, Mich., August 27, 1917.

Editor:

I have received my commission, 1st Lieutenant, M. R. C., U. S. A. Am very desirous before closing out to have a substitute here. Can you recommend any one? Quiet family practice, no opposition except an irregular, carries with it \$500 county work, limited territory, very nice people and quiet and conservative.

My people find a good deal of fault about my going. So long here they believe they own me. So would be glad to have some good reliable man in my place. Hope you have as President of the State Medical Society, some one in view or on list. Thanking you in advance.

Sincerely yours,

A. J. MCKILLOP, M.D.

Elk Rapids, Mich., Sept. 6, 1917.

The Journal of the Mich. State Medical Society,
Grand Rapids, Mich.

Dear Sir:

The undersigned, a member of Grand Traverse-Leelanau county was issued a commission as Captain M. R. C. August 18, 1917. Has a wife and one child dependent.

A \$3,000 practice to turn over to some regular the day I am called. Nothing to sell. Cheap rent. Office furniture few. Send me a good man.

Yours truly,

LOUIS N. YERKES.

Deaths

Dr. O. G. Youngquist, of Marquette died Sept. 7 after a long illness.

Dr. John T. Cooper of Muskegon, county physician for years and an anti-tuberculosis worker in that section, died during the latter part of August.

Dr. H. M. Bradley died in Augustana Hospital, Chicago, after an operation. Dr. Bradley was a well known physician of Bay City, having practised there for about fifteen years.

Dr. J. R. Shank of Flint, died suddenly at his residence on August 28.

Notice has also been received of the death of Dr. C. G. Pratt of Sparta, who was not a member of the Society.

State News Notes

Gov. A. E. Sleeper will be asked to appoint a commission to make recommendations for the control of venereal diseases of the state of Michigan, as the result of the first municipal conference on sex diseases in the state, which was held at the Jackson public library Sept. 12.

The conference was attended by men prominent in business and professional life in various sections of the state, more than fifty persons being present.

The primary purpose of the meeting as outlined by Dr. C. G. Parnall, head of the Jackson department of public health, at the opening of the conference, was to consider the present menace of venereal diseases in relation to the public health. He stated the social aspect as it is, must momentarily be second in consideration, and that any movement designed to attack the problem must take cognizance of two main features, the prevention of venereal diseases in the army and the control of these diseases in the civil population.

Addresses covering every phase of the subject were given and resulted not only in a passage of a resolution asking the appointment of a commission, but tentative resolutions to stamp out prostitution within the boundaries of the state and to control venereal diseases and prevent their spread.

A permanent committee to carry on the work and bring the problem before Gov. Sleeper was appointed and is composed of the following members: Dr. W. H. Sawyer, Hillsdale; Miss Eleanor Hutzel, Detroit; Rev. Caroline Bartlett Crane, Kalamazoo; Dr. A. S. Warthin, Ann Arbor; Fred L. Woodworth, state dairy and food commissioner, Lansing; Dr. C. G. Parnall, Jackson; Dr. R. M. Olin, secretary state board of health, Lansing.

RESOLUTIONS ADOPTED.

The tentative resolutions provide for the following:

Prostitution is to be suppressed vigorously and continuously through the enforcement of the state laws, but the issuance of certificates of health of prostitutes for use in soliciting is not to be included in this program.

Prostitutes brought to the attention of the police or health authorities are to be examined; and all persons, male or female, capable of spreading venereal disease are to be isolated under the provisions of the public health act, or local ordinance and treated at public expense as long as there is danger, in the opinion of the health officer, of their exposing others.

Under no circumstances are infected prostitutes to be "floated" into other communities, and if they are known to go from one community to another, the health officials of the place of destination are to be notified at once.

The state law requiring the reporting of syphilis and gonococcus infections by physicians is to be enforced to the letter, and, in addition, physicians are to be urged to obtain and furnish to the local health officers the names of the persons who are suspected of disseminating infection. The local health officers are therefore to investigate and super-

vise or isolate infection cases according to the circumstances.

To provide and encourage the instruction of young men and women in the advantage of a clean life and the dangers from venereal disease.

To provide adequate opportunities for expert diagnosis, treatment and advise for infected persons financially unable to secure proper attention for themselves.

To provide free laboratory tests for syphilis and gonococcus infections for physicians, and to encourage greater use of the tests for these diseases available at the laboratory of the bureau of communicable diseases of the state board of health.

In the absence of Mayor William Sparks, the conference was called to order by Commissioner John Bennett, who presented Dr. C. G. Parnall, the latter outlining the purpose of the meeting. A. M. McGee presided as secretary.

The first speaker was called on by the chairman was Rev. Lloyd Douglas, of Ann Arbor, who in referring to the proposed control of sex diseases and prostitution, likened the situation to that which confronted various governments which attempted the construction of the Panama canal. Disease, he said, was responsible for the failures, until the United States stepped in, and the task was pronounced a hopeless one. When the proper measures were taken it proved contrary to this, he said, as was shown by the results, and he predicted that the time will come when prostitution will be completely stamped out, and he advocated stringent regulations as the first step in this direction.

VENEREAL DISEASES A GREAT DANGER.

Dr. W. H. Martin, who is associated with Major Snow in charge of the venereal disease work for the United States Army, was next called on and spoke in part as follows:

"The time was when the war department thought prostitution was necessary in order to prosecute war, but this belief has been dispelled. We may legislate but cannot control sex vice until we have stimulated in the minds of the young the idea of clean living. Venereal diseases are one of the greatest perils confronting an army. Ninety per cent of the men who go to fight in this war will return, but how many of them will be afflicted with venereal disease? The germ which lies in venereal diseases is a far greater enemy than the Germans."

In his address Dr. Martin referred to the fact that while in Battle Creek the prostitute is being banished from the city, a great peril lies in young girls from 13 to 16 years of age. He spoke of an incident that had come to his notice, that of a young girl who was brought home by a soldier. The latter rang the bell and when the father came to the door said: "Take care of your daughter, sir; for I could tell you things she has been doing that are almost unbelievable."

ARMY OFFICIAL SPEAKS.

Avery G. Clinger, stationed at Battle Creek as head of the war department commission on training camp activities, in his address said in part:

"The cantonment at Battle Creek is not the problem of that city any more than it is the problem of other cities in the state, especially those surrounding it. I have been in Battle Creek for

seven weeks, and I heard the prosecuting attorney say that only one soldier had been dealt with, and this man was up for being intoxicated.

"One of the worst things with which we are confronted are the young girls, 13 to 16 years of age, who think they are doing their bit by being of service to soldiers."

Mr. Clinger outlined at length the work his commission is doing.

Major Neil M. Wood, head of the base hospital at Camp Custer; Dr. A. S. Whartin, head of the pathology department of the University of Michigan;

Dr. J. H. Kellogg of the Battle Creek Sanitarium; Dr. Richard Olin, secretary of the state board of health; Rev. Caroline Bartlett Crane of Kalamazoo, and Dr. W. H. Sawyer, regent of the University of Michigan, were among the other speakers who dwelt at length on the peril of venereal diseases to the army and civil population, and advocated the control of these diseases and prostitution.

Gov. Sleeper was to have been in attendance at the meeting, but while on his way to Jackson was called back to Lansing by a meeting of the war board.

REPORT OF STATE BOARD OF REGISTRATION OF NURSES.

JUNE EXAMINATIONS, 1917.

Number of subjects	8
Number of questions	71
Number of candidates	190 of whom
	127 were passed and
	63 failed.
Number for return examinations	31 of whom
	24 were passed and
	7 failed.
Total number candidates	221
Total number passed	151
Total number failed	70

The passing mark on each subject is 70 per cent.

The following Training Schools for Nurses were represented in the examinations:

Michigan Schools	38
From other states and countries	10
Total	48

Name of School	Candidates	Passed	Failed
Ann Arbor Private Hospital	1	1	0
Battle Creek Sanitarium	17	12	5
Return examination in three subjects	2	2	0
Bay City Hospital	2	1	1
Return examination in three subjects	2	2	0
Blodgett Memorial Hospital, Grand Rapids	6	2	4
Boulevard Hospital, Detroit	1	0	1
Return examination in three subjects	1	0	1
Brainerd Hospital, Alma	0	0	0
Return examination in two subjects	1	1	0
Bronson Hospital, Kalamazoo	1	1	0
Return examination in three subjects	1	1	0
Butterworth Hospital, Grand Rapids	22	12	10
Return examination in twelve subjects	5	2	3
Calumet and Hecla Hospital, Calumet	1	1	0
Calumet Public Hospital, Laurium	0	0	0
Return examination in one subject	1	1	0
Children's Free Hospital, Detroit	3	1	2
City Hospital, Jackson	1	1	0
Return examination in one subject	1	1	0
E. W. Sparrow Hospital, Lansing	2	2	0
Return examination in two subjects	1	1	0
Grace Hospital, Detroit	10	6	4
Hackley Hospital, Muskegon	5	5	0
Harper Hospital, Detroit	23	20	3
Homeopathic Hospital, Ann Arbor	5	4	1
Return examination in one subject	1	1	0
Hurley Hospital, Flint	1	1	0
Return examination in one subject	1	1	0
Lockwood Hospital, Petoskey	1	1	0
Mercy Hospital, Bay City	0	0	0
Return examination in two subjects	1	1	0
Mercy Hospital, Big Rapids	1	1	0
Mercy Hospital, Manistee	3	0	3
Mercy Hospital, Muskegon	1	0	1
Munising Hospital, Munising	2	0	2
Nichols Memorial Hospital, Battle Creek	6	6	0
Petoskey Hospital, Petoskey	1	1	0
Return examination in three subjects	1	0	1
Port Huron Hospital, Port Huron	1	1	0

Name of School	Candidates	Passed	Failed
Providence Hospital, Detroit	6	4	2
Return examination in five subjects	1	0	1
St. Joseph's Sanitarium, Ann Arbor	1	1	0
St. Joseph's Sanitarium, Mt. Clemens	3	2	1
Return examination in two subjects	1	1	0
St. Mary's Hospital, Grand Rapids	12	9	3
Return examination in nine subjects	3	3	0
St. Mary's Hospital, Saginaw	2	2	0
Return examination in five subjects	1	0	1
Samaritan Hospital, Detroit	3	2	1
Return examination in two subjects	1	1	0
Saginaw General Hospital, Saginaw	6	5	1
State Hospital, Kalamazoo	2	1	1
Return examination in one subject	1	1	0
State Hospital, Traverse City	4	2	2
Return examination in two subjects	1	1	0
U. of M. Hospital, Ann Arbor	25	18	7
Return examination in one subject	1	1	0
Woman's Hospital, Detroit	1	0	1
Schools From Other States	Candidates	Passed	Failed
Galt General Hospital, Galt, Ont., Canada	1	0	1
Guelph General Hospital, Guelph, Ont., Canada	1	0	1
Milwaukee County Hospital, Milwaukee, Wis.	1	0	1
Montana Deaconess Hospital, Great Falls, Montana ..	1	0	1
Royal Victoria Hospital, Montreal, Canada	1	0	1
St. Joseph's Hospital, Chatham, Ont., Canada	1	0	1
Sarnia General Hospital, Sarnia, Ont., Canada	0	0	0
Return examination in one subject	1	1	0
Southwark Infirmary, London, England	1	1	0
State Hospital, Topeka, Kansas	0	0	0
Return examination in two subjects	1	1	0
University Hospital, Chicago, Illinois	1	0	1

WAYNE NEWS ITEMS.

Dr. A. P. Biddle reports that his brother, Gen. John Biddle, recently saw Majors McLean and Torrey, and found them well and hard at work.

Capt. F. H. Newberry is in the city on a ten days' leave. He has been appointed Neurologist and Alienist to Fort Benj. Harrison with the prospect of having much interesting and valuable work to do.

Lieutenant William R. Clinton, M. R. C. has been ordered by General Barry, commanding the central department, Chicago, to report for active duty to Major Frederick E. Phelps, recruiting officer for the regular army, at 21 Woodward avenue.

Lieutenant H. S. Berman has been ordered to Fort Riley, Kan.

The Wayne County Medical Society will hold its first regular meeting for the year, September 17.

The Detroit Trust Company has been authorized to receive and manage the Patriotic Fund of the Society. Those who contribute to this fund will therefore have the assurance that it will be competently and safely handled. No money will be expended except when directly authorized by the Patriotic Committee, and after careful consideration of the individual case. There are now before the committee several cases in which money is needed. The pledge cards have been sent to every member of the society and a generous response is hoped for by the committee. Make checks payable to the Patriotic Committee, Detroit Trust Co., Agent.

Lieut. M. F. Hosmer, late of the House Staff of Grace Hospital, has been ordered to recruit and take abroad a supplementary or partial hospital unit, to be added to the so-called "Crile Unit." His address is Base Hospital No. 4, American Expeditionary Force, France.

The address of Base Hospital No. 17, or "Harper Unit," is now American Expeditionary Forces, U. S. Army Hospital No. 3 (Base Hospital No. 17), France.

Lieut. R. H. Bookmeyer has been ordered to Fort Benj. Harrison.

Major Phillips, M. C., has been assigned to command Base Hospital No. 36, and has now been at his post for several days.

The following officers are reported to have been ordered to Fort Benjamin Harrison: Captains Jas. H. McCall, Robert A. C. Wollenberg; Lieutenants Clarence H. Belknap, Edmund W. Bolio, Edward Kanter, Robert M. Martin, Robert C. Moehlig, Grover C. Penberthy, William L. Sherman.

Captain Charles Barton has been ordered to active duty at Camp Taylor, Louisville, in the Division of Ophthalmology, Section Surgery of the Head.

The owners of the Kresge Building have voluntarily released all their medical tenants who are in service in the army or navy, from the obligations of their leases; or if they wish to keep an assistant at work and occupying the offices during their absence, they may do so on the payment of only a nominal rental. Further, men may have their offices back, if possible, when they return.

The Michigan Trudeau society is the name of a new medical organization that has been formed in this state for the purpose of fighting tuberculosis. Membership in it will be limited to physicians, and only those Michigan doctors will be eligible to join who have either done some service of social value in Michigan or whose professional records shows them to be specialists in this line. The officers are: President, Dr. V. C. Vaughan, Jr., Detroit; vice-president,

Dr. J. S. Pritchard, Battle Creek; secretary, Dr. William De Kleine, Flint.

Just as our forms were closing we received word of the death of Mrs. W. T. Dodge of Big Rapids on Friday evening, Sept. 21st. Heart complications was the cause of death. Mrs. Dodge was Virginia Mulvey of Alma and had been married to Dr. W. T. Dodge but three months. On behalf of our members we extend to Dr. Dodge the sincere sympathy of our membership and assure him of our fraternal sorrow in his bereavement.

Dr. V. A. Chapman of Muskegon announces that he is now located in Milwaukee in the office of Dr. Nelson M. Black.

Dr. F. J. Groner of Grand Rapids announces his forced retirement from practice on account of ill health and advertises the sale of his instruments and office equipment. Those interested should write or call on Dr. Groner direct.

Dr. Harold S. Hulbert of Detroit is now Assistant Surgeon, Michigan Naval Militia, and was designated by the Surgeon General U. S. Navy to be the psychiatrist at the U. S. Naval Training Station at Great Lakes, Ill.

Dr. F. R. Ostrander has assumed his duties as health officer of Lansing.

The new Public Hospital of Hancock was opened to receive patients August 27th.

COUNTY SOCIETY NEWS

It is the Editor's desire to have this department of the Journal contain the report of every meeting that is held by a Local Society. County Secretaries are urged to send in these reports promptly

WAYNE COUNTY

At a meeting of the Wayne County Medical Society, held Monday, August 6, 1917, the following resolutions were adopted:

The Patriotic Committee of the Wayne County Medical Society has been created for the following purposes:

1. To keep an accurate, personal record of all members of the Society who have received commissions or who have enlisted, together with all possible details of their family needs.
2. To authorize the publication of a War Bulletin containing medico-military news, etc.
3. To provide social and financial aid to the families of members in service where it may be necessary.
4. To provide a fund of sufficient size to make a substantial payment to members who have been in service, upon their final return, where such aid may be needed.
5. To co-operate in all possible ways with other medical committees relative to the war, which may exist now or may be created hereafter.
6. To equalize in every possible way, the burdens and sacrifices which are made by men who are in active service and to distribute those burdens among the members of the Society who remain at home.

Whereas, in order to provide adequate financial aid to members of the Society who have gone into the service of the Government, these members having in some cases, made the sacrifice of their total resources, it will be necessary to raise a large sum of money and whereas these sacrifices should be shared by those who stay at home; therefore

Resolved, that the Patriotic Committee be empowered to raise the necessary funds for this purpose,

pose, by an assessment properly proportioned among the members of the Society who are not in service, and also

Resolved, that in the opinion of the Committee, this assessment should be not less than 3 per cent. nor more than 8 per cent. of the total annual income of each member.

Your patriotic Committee recognizes the grave and important responsibility which has been given to it, and will endeavor to carry out these resolutions as justly and as completely as possible.

This can be done, however, only through the co-operation of every member of the Society, who must first realize the peculiar and special obligation which now rests upon him. The underlying principle of this obligation is that each of us must participate in the sacrifices made necessary by the war. Any absolutely equal distribution of sacrifices is of course impossible but we may help to approach it.

The contribution of money for which your committee now asks, is but a small offset to that which is given by our fellow members in service.

You will observe from the resolution, how much money you are expected to contribute. For every \$1,000.00 of your total annual income, a monthly payment of \$2.00 to \$7.00, is to be made as long as the war continues, and as long as you are not in the service of the Government. This money will be safeguarded under bonds, and the funds will be used only in the fairest and most impartial way for the relief of the members of the Society who are in service and their dependent families.

The Detroit Trust Company will hold and invest all funds, and will disburse them only on written vouchers from the Patriotic Committee.

We recognize that the contribution of the money for which your committee asks, is only a moral

obligation, but we believe that this obligation is so plain that it will meet with universal acceptance, and we count upon your help with implicit confidence.

Whatever other sacrifices we are making, none can take the place of this offering we are going to make to our comrades who are giving everything.

THE PATRIOTIC COMMITTEE

OF THE WAYNE COUNTY MEDICAL SOCIETY.

DR. JOHN BELL, Chairman.

DR. WALTER J. WILSON, JR., Secretary.

N. B.—Make checks payable to The Patriotic Committee of the W. C. M. S., Detroit Trust Co., Agent.

CALHOUN COUNTY

Regular meetings were resumed Tuesday evening, September 4, and the meeting was of a decided military nature. Previous to the meeting about forty members and guests assembled at the Post Tavern and enjoyed a six o'clock luncheon together. Several Medical Army Officers were our guests, at this function, and later at the meeting which was held in the City Hall beginning at eight o'clock.

Dr. Northrup of Grand Rapids was our out of town guest, while Major Neal W. Wood of the Army Medical Corps also appeared on the program.

Many of our number who are regular in their attendance were absent having enlisted in active military service, and having been ordered elsewhere.

Since the locating of Camp Custer at Battle Creek, will bring an unusual number of Army Medical men, our Medical Society has thought it best to hold special meetings for the balance of this year, and it was decided to hold a special scientific meeting each month. To meet this requirement the Program Committee was enlarged, and it is the plan to have meetings of special interest for the balance of the year.

GRATIOT-ISABELLA-CLARE COUNTY

The regular August meeting of the Gratiot-Isabella-Clare County Medical Society was held Thursday, August 16, at the Park House in St. Louis. The minutes of the June meeting were read, and approved.

Dr. Pullen of the committee on illegal practitioners, reported A. Bernard was supposed to be in jail in Lansing, that he could be prosecuted as soon as he returned to Mt. Pleasant.

Dr. Brainerd reported he was the only member from Gratiot at the picnic in Mt. Pleasant in July, but that every one seemed to enjoy themselves.

Dr. Highfield attempted to have the letter from the State Secretary relative to the forming of a patriotic fund, which was laid on the table at the June meeting, again taken up for discussion. As there wasn't any support to Dr. Highfield the President declined to have the matter taken up.

Dr. W. H. Dodge of Big Rapids then read a very interesting paper entitled "New Methods of Treating Wounds Brought out by the War." His paper was discussed by Drs. Brainerd, Pullen, Carney and Brandstetter and others.

E. M. HIGHFIELD, Secretary.

Book Reviews

POLIOMYELITIS—IN ALL ITS ASPECTS. By John Rubrah, M.D. and Erwin E. Mayer, M.D. With 118 engravings. 293 pp. Lea & Febiger, Philadelphia.

A splendid compilation of the various facts concerning this disease and an able discussion of important and interesting observations. It contains in one volume the information one desires on the subject. It may be conceded to be the most up to date presentation of the subject and as such it is bound to be a welcome addition to every students library.

HAND BOOK OF ANATOMY. By James K. Young, M.D., F.A.C.S., Professor Orthopedic Surgery, Polyclinic, Philadelphia. Fifth Edition, 154 engravings. F. A. Davis Company, Philadelphia. Price \$2.00.

Received.

PRACTICAL MATERIA MEDICA AND PRESCRIPTION WRITING. By Oscar W. Bethea, M.D., Ph.G., F.C.S., Asst. Professor of Materia Medica, Tulane University. 2nd Edition, Cloth, Illustrated. Price \$4.50. F. A. Davis Co., Philadelphia.

This volume maintains the standard of the first edition and is up to the minute in pharmacopoeial changes and new drugs.

FIRST LESSON IN SPOKEN FRENCH FOR DOCTORS AND NURSES. By E. H. Wilkins, A. Coleman and Ethel Preston. Cloth, price fifty cents. The University of Chicago Press.

This is a handy valuable premier that will be of material aid to all entering army life.

Miscellany

PROPAGANDA FOR REFORM.

Standardization of Serums and Vaccines.—The misunderstandings and difficulties as regards the standardization of serums and vaccines are pointed out by G. W. McCoy, Director of the U. S. Hygienic Laboratory. So far legal standards have been formulated only for diphtheria and tetanus antitoxin. A tentative standard for antityphoid vaccine has been devised. This completes the list of standardized biologic products. Though not standardizable, vaccine virus and antirabic virus are tested for potency in the process of manufacture. McCoy reviews the work which has been done in the attempt to work out and standardize other biologic products, and brings out the many difficulties which are in the way (*Jour. A.M.A.*, Aug. 4, 1917, p. 378).

Administration of Agar.—O. H. Brown and W. O. Sweek favor the administration of agar in the form of a hot lemonade, chocolate or bouillon. For the preparation of a lemonade they direct to take 2 heaping tablespoonfuls of the agar powder, flakes or shreds; add to 1 quart of water, and boil till the agar is thoroughly liquified; sweeten and add juice of one lemon; then drink the entire quart while hot. They suggest that the quart of hot agar lemonade may be prepared in the morning, poured into a vacuum bottle, and taken leisurely during the day. They find that patients prefer to make use of orange, grapefruit, vanilla, maple or other flavoring in place of the lemon (*Jour. A.M.A.*, Aug. 11, 1917, p. 467).